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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,499	04/18/2001	Frank Becker		7890

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WOOD, PHILLIPS, VANSANTEN,
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Chicago, IL 60661

EXAMINER

LEE, EDMUND H

ART UNIT PAPER NUMBER

1732

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/837,499

Applicant(s)

BECKER ET AL.

Examiner

EDMUND H. LEE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.
2. The amendment and remarks filed 2/7/05 have been entered.
3. The following Office action is based upon the amended claims and remarks filed 2/7/05.
4. The amendment filed 2/7/05 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the paragraph that is set forth on page 2 of the amendment filed 2/7/05. The instant disclosure does not support the language recited in the paragraph.

Applicant is required to cancel the new matter in the reply to this Office Action.
5. Claims 1-2, 4-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims introduce new matter into the

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disclosure. The added material which is not supported by the original disclosure is as follows:

a) the phrase "in a manner...groove and" (cl 1, lns 9-12) lacks support in the instant disclosure. There is no mention of the claimed limitation in the instant disclosure.

b) the phrase "in a manner...groove and" (cl 2, lns 11-14) lacks support in the instant disclosure. There is no mention of the claimed limitations in the instant disclosure.

6. Claims 1-2 and 4-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "particularly activated carbon" (cl 1, ln 4; cl 2, ln 4) is indefinite because the metes and bounds of the phrase are unascertainable. It is unclear whether or not activated carbon is used.

The phrase "comprising an inner surface...or a tongue" (cl 1, lns 5-6) is indefinite because it is unclear. It appears that the phrase --or tongue-- should be inserted after "groove" and the word "thereagainst" should be inserted after "is formed".

The phrase "or fan" (cl 1, ln 13; cl 8, ln 3; cl 9, ln 4) is indefinite because it conflicts with the preamble of the claim, which recites "respiratory filter".

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The phrase "or fan" (cl 2, ln 6 and 15; cl 4, ln 3 and 4; cl 13, lns 2 and 3; cl 14, lns 2 and 3) is indefinite because it conflicts with the preamble of the claim, which recites "respiratory filter".

The phrase "a positive or non-positive gastight connection" (cl 2, ln 7) is indefinite because it is confusing. The connection cannot be non-positive if a groove or tongue is present.

The phrase "the apparatus" (cl 13, ln 1; cl 14, ln 1) lacks antecedent basis in the claim. The phrase should be changed to --The respiratory filter--.

Clarification or correction is required.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 8-12, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor (USPN 5817263) in view of Newton (USPN 5660173). Taylor teaches the basic claimed process including a method for producing a respiratory filter (col 3, lns 40-65; col 4, ln 42-col 5, ln 60; and figs 1-2); intermixing activated carbon with a meltable polymer to produce a mixture (col 3, lns 40-65; col 4, ln 42-col 5, ln 60; and figs 1-2); and molding the mixture in a connecting part comprising an inner surface into which the mixture is formed against so as to make a molded piece and a substantially gastight connection between the molded piece and the inner surface of the connecting

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part and a molded piece and connecting part that can be operatively connected as a unit to a respirator filter unit (col 3, lns 40-65; col 4, ln 42-col 5, ln 60; and figs 1-2). Taylor, however, does not teach using an inner surface with a complete or partial groove or tongue. Newton teaches a respiratory filter having a connecting part with complete or partial grooves or tongue (irregular surface) on an inner surface of the connecting part (fig 2); and using an irregular shaped inner surface in order to create a more homogenous and greater packing density in the bed than a smooth surface (col 7, lns 21-28; fig 2). Taylor and Newton are combinable because they are analogous with respect to respiratory filters. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the dimpled inner wall design of Newton into the connecting part of Taylor in order to create a more homogenous and greater packing density in the bed of Taylor. It should be noted that the combination of Taylor and Newton subsequently teaches a molded piece that engages in or partially encloses the groove or tongue in a manner that a gas tending to move in a straight path past the connecting part between the inner surface of the connecting part and the mixture is caused to either a) be diverted away from the inner surface into the mixture by the tongue or b) pass through the mixture at the groove and so that the molded piece and connecting pad can be operatively connected as a unit to a respirator filter unit. In regard to claims 8-12 and 15, Taylor teaches operatively connecting the respiratory filter to a respirator or fan filter unit (col 5, lns 55-60)--as a note, it is inherent that the filter of Taylor would be operatively connected a respirator or fan filter in order to use the product; providing an adapter and operatively connecting the respirator filter to the

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respirator or fan filter unit through the adapter (col 5, lns 55-60)--as a note, it is inherent that the filter of Taylor would be placed in a housing which is connected to the respirator or fan filter; molding the mixture to make a positive gastight connection between the molded piece and the connecting part (col 8, lns 55-60)--as a note, it is inherent that a positive gastight connection is created in order to provide a gas filter; providing a connecting part comprising the step of providing a ring-shaped connecting part (figs 1-2); and heating the mixture under pressure in the connecting part during the step of molding the mixture (col 4, lns 63-67). Taylor, however, does not teach snap-fitting the respirator filter to the adapter. It is well-known in the molding art to connect parts by snap-fit. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a connecting part having snap-fit capability in the process of Taylor in order to ensure a good connection between the connecting part and the respirator or fan filter unit.

9. Claims 2, 4-7, and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor (USPN 5817263). in view of Newton (USPN 5660173). Taylor teaches the basic claimed filter including a mixture of activated carbon with a meltable polymer, which has been pressed into a molded piece (col 3, lns 40-65; col 4, ln 42-col 5, ln 60; and figs 1-2); a connecting part that is in a positive or non-positive gastight connection with the molded piece, wherein the connecting part comprises an inner surface into which the mixture is formed against, and the connecting part can be operatively connected as a unit to a respirator filter unit (col 3, lns 40-65; col 4, ln 42-col

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5, In 60; and figs 1-2). Taylor, however, does not teach an inner surface with a complete or partial groove or tongue. Newton teaches a respiratory filter having a connecting part with complete or partial grooves or tongue (irregular surface) on an inner surface of the connecting part (fig 2); and using an irregular shaped inner surface in order to create a more homogenous and greater packing density in the bed than a smooth surface (col 7, Ins 21-28; fig 2). Taylor and Newton are combinable because they are analogous with respect to respiratory filters. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the dimpled inner wall design of Newton into the connecting part of Taylor in order to create a more homogenous and greater packing density in the bed of Taylor. It should be noted that the combination of Taylor and Newton subsequently teaches a molded piece that engages in or partially encloses the groove or tongue in a manner that a gas tending to move in a straight path past the connecting part between the inner surface of the connecting part and the mixture is caused to either a) be diverted away from the inner surface into the mixture by the tongue or b) pass through the mixture at the groove and so that the molded piece and connecting pad can be operatively connected as a unit to a respirator filter unit. In regard to claims 4-7 and 13-14, Taylor inherently teaches the filter of Taylor being placed in a housing (adapter), which is connected to the respirator filter unit. Taylor does not teach a connecting part having fasteners on its periphery for a detachable gastight connection to a respirator or fan filter unit or for a gastight connection to an adapter for connection to a respirator or a fan filter unit; a connection to an adapter that is detachable; fasteners that are designed for snap-in or

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threaded connection; a connecting part made of a polymer with a higher melting point than the polymer of the molded piece, or of cardboard or metal; and the filter being operatively connected directly to the filter unit. In regard to a connecting part having on its inner surface a complete or partial groove or tongue which the compacted molded piece engages in or partially encloses, mechanical interlocking between a molding material and a preform is well-known in the molding art for its strength. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the claimed design into the connecting part of Taylor in order to strengthen the connection between the connecting part and the mixture. In regard to a connecting part having fasteners on its periphery for a detachable gastight connection to a respirator or fan filter unit or for a gastight connection to an adapter for connection to a respirator or a fan filter unit, it is well-known in the molding art to attach a preform to a shell or another component by fasteners. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the claimed design into the connecting part of Taylor in order to facilitate the attachment of the connecting part to shell or another component. In regard to a connection to an adapter that is detachable, such is well-known in the filter art in order to facilitate the replacement of the filter. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the connection detachable in order to achieve the above result. In regard to fasteners that are designed for snap-in or threaded connection, such are well-known fastening means in the filter art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was

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made to include the claimed design into the connecting part of Taylor in order to facilitate the attachment of the connecting part to another part. In regard to a connecting part made of a polymer with a higher melting point than the polymer of the molded piece, or of cardboard or metal, connecting parts made of the claimed material are well-known. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a connecting part of the claimed material in the apparatus of Taylor in order to produce a high-quality filter unit. In regard to the filter being operatively connected directly to the filter unit, it is well-known to design a filter that can be directly connected to a filter unit. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to design the connecting part of Taylor to be capable of direct connection to a filter unit in order to reduce complexity and increase ease of use.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDMUND H. LEE whose telephone number is 571.272.1204. The examiner can normally be reached on MONDAY-THURSDAY FROM 9AM-4PM.

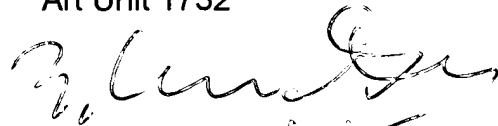
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on 571.272.1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EDMUND H. LEE
Primary Examiner
Art Unit 1732

EHL


3/18/05